

PROJECT DESCRIPTION

1. General
- This project involves the construction of a new traffic control signal with intersection street lighting and traffic signal interconnect in conjunction with geometric improvements at the intersection of MD 5(Branch Ave) and W.M.A.T.A. Entrance in Prince George's County, Maryland. MD 5 is assumed to run in a north / south direction.
- II. Intersection Operation
- This intersection shall operate in a NEMA six (6)phase semi-actuated mode with the northbound and southbound left turns operating in an exclusive/permitted phase. Eastbound/westbound W.M.A.T.A. Entrance shall operate concurrently.
- An eight phase fully-actuated controller with a system package and four (4) four channel rack mounted loop detector amplifiers house in a base mounted cabinet shall be installed at this intersection.
- III. Special Notes
- 1.) Maintenance of traffic will be handled by the contractor utilizing the following standard plates for traffic control: 104.00 - 104.00-30, 104.32-02, 104.33-02, 104.38-02, 104.39-02, 104.40-02, 104.41-02, 104.44-02, 104.45-02, 104.48-02.
- 2.) The following are SHA District 3 Contact persons:
- Mr. Richard L. Daff, Sr.  
Chief, Traffic Operations  
Division (410) 787-7630

Mr. Charles Watkins  
District Engineer  
(301) 513-7311

Mr. Majib Shakib  
Asst. District Engineer -  
Traffic  
(301) 513-7358

Mr. Randy Brown  
Asst. District Engineer -  
Maintenance  
(301) 513-7304

Mr. Augustine Rebish  
District Engineer- Utility  
(301) 513-7350
- 3). The contractor shall be responsible for routing all cables into the base of the controller cabinet and properly tag / label each cable. Maryland SHA forces shall be responsible for internal wiring.

EQUIPMENT LIST

A. Equipment to be supplied by the Administration

| Item No. | Quantity | Units | Specification Section | Description  |
|----------|----------|-------|-----------------------|--|
|          | 6        | EA    | 814                   | 12 in. 1 way 3 section (R,Y,G) signal head - mast arm mount.                                     |
|          | 2        | EA    | 814                   | 12 in. 1 way 5 section (R,Y,G,YA,GA) signal head - mast arm mount.                               |
|          | 2        | EA    | 814                   | Combination 8 in./12 in. 1 way 5 section (8 in. R,Y,G /12 in. YA,GA) signal head mast arm mount. |
|          | 1        | EA    | 816                   | Eight-phase (fully actuated) controller with system package and cabinet) - base mount            |
|          | 2        | EA    | xxx                   | four channel rack mounted loop detector amplifier(delayed output)                                |
|          | 50       | SF    | 813                   | Sheet aluminum signs                    consisting of:   |
|          |          |       | 2    EA               | R10-12, (36 in. x 42 in.)-mast arm mount.  |
|          |          |       | 2    EA               | D3-2 (var x 16 in.) mast arm mount   |
|          |          |       | 1    EA               | R3-5 (30 in. x 36 in. )  |

B. Equipment to be furnished and/or installed by the Contractor.

| Item No. | Quantity | Units | Specification Section | Description  |
|----------|----------|-------|-----------------------|--|
| 12       | CY       | 205   |                       | Test pit excavation  |
| 165      | LF       | 555   |                       | 24 in. white reflective thermoplastic pavement marking   |
| 9        | CY       | 801   |                       | Furnish and install concrete for signal foundation.  |
| 3        | EA       | 804   |                       | Furnish and install ground rod - 3/4 in. diameter x 10 ft.                                     |
| 310      | LF       | 805   |                       | Furnish and install 3 in. schedule 80 rigid PVC conduit - slopped.                             |
| 20       | LF       | 805   |                       | Furnish and install 3 in. schedule 80 rigid PVC conduit - trenched.                            |
| 240      | LF       | 805   |                       | Furnish and install 2 in. schedule 80 rigid PVC conduit - Trenched.                            |
| 15       | LF       | 805   |                       | Furnish and install 1 in. liquid tight flexible non-metallic conduit for detector wire sleeve. |
| 2        | EA       | 806   |                       | Furnish and install 250 Watt high pressure sodium lamp and luminaire with photo cell           |
| 1        | EA       | 807   |                       | Furnish and install control and distribution equipment.  |
| 450      | LF       | 810   |                       | Furnish and install No. 6 AWG standard bare copper ground wire.                                |
| 15       | LF       | 810   |                       | Furnish and install electrical cable 1-conductor No. 4 AWG - THHN/THWN                         |


EQUIPMENT LIST (CONT.)

B. Equipment to be furnished and/or installed by the Contractor.

| Item No. | Quantity | Units | Specification Section | Description   |
|----------|----------|-------|-----------------------|---|
| 700      | LF       | 810   |                       | Furnish and install electrical cable - 2 conductor (Aluminum shielded).   |
| 55       | LF       | 810   |                       | Furnish and install electrical cable - 5 conductor (No. 14 AWG).  |
| 1530     | LF       | 810   |                       | Furnish and install electrical cable - 7 conductor (No. 14 AWG).  |
| 1800     | LF       | 810   |                       | Furnish and install loop wire encased in flexible tubing (No. 14 AWG).  |
| 280      | LF       | 810   |                       | Furnish and install 2 - conductor - Tray cable (No. 12 AWG).  |
| 6        | EA       | 811   |                       | Furnish and install electrical handhole.  |
| 50       | SF       | 813   |                       | Install overhead sign - for signals.  |
| 10       | EA       | 814   |                       | Install signal head - any type  |
| 660      | LF       | 815   |                       | Furnish and install saw out for signal.   |
| 1        | EA       | 816   |                       | Install eight phase (fully actuated) controller and cabinet - base mount.   |
| 1        | EA       | 829   |                       | Furnish and install 27 ft steel pole with twin 60 and 50 ft. mast arms (Note: Four - 2 in. x 90 in. anchor bolts. |
| 2        | EA       | 829   |                       | Furnish and install 27 ft steel pole with a 50 ft. mast arm (Note: Four - 2 in. x 90 in. anchor bolts.)           |
| 2        | EA       | 818   |                       | Furnish and install 20 ft lighting arm on signal structure  |



| REVISIONS | APPROVALS                                 |
|-----------|---|
|           | ASST. DIVISION CHIEF, TEDD                |
|           | ASST. DISTRICT ENGINEER, TRAFFIC          |
|           | CHEF, TRAFFIC ENGINEERING DESIGN DIVISION |
|           | DIRECTOR, OFFICE OF TRAFFIC & SAFETY      |



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION  
Office of Traffic & Safety  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 5 (BRANCH AVE) @ WMATA ENTRANCE  
GENERAL INFORMATION SHEET  
SHEET 2 OF 2

LOGMILE #:

DRAWN BY: R. CIOCHINI  
CHECK BY: D. PETERS  
SCALE: 8'-3"-00 1"=20'

F.A.P. NO. P-388-000-385  
S.H.A. NO. PRINCE GEORGE'S  
COUNTY

PLAN SHEET NO.:  
SHEET NO. 112 OF 157

DATE 7 / / 98